

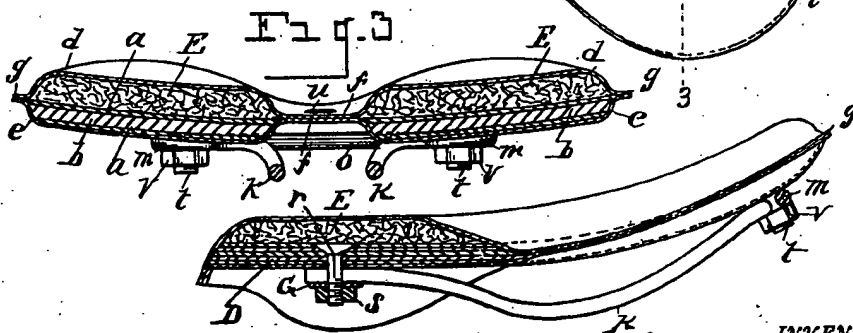
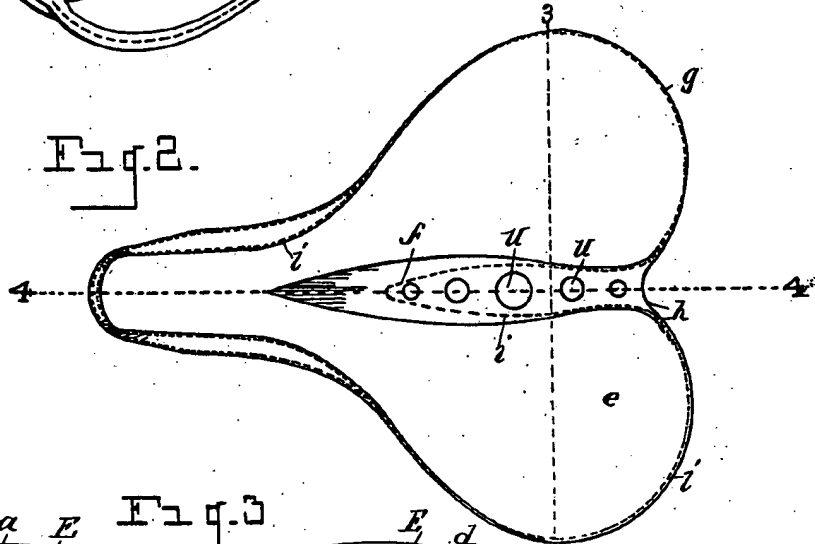
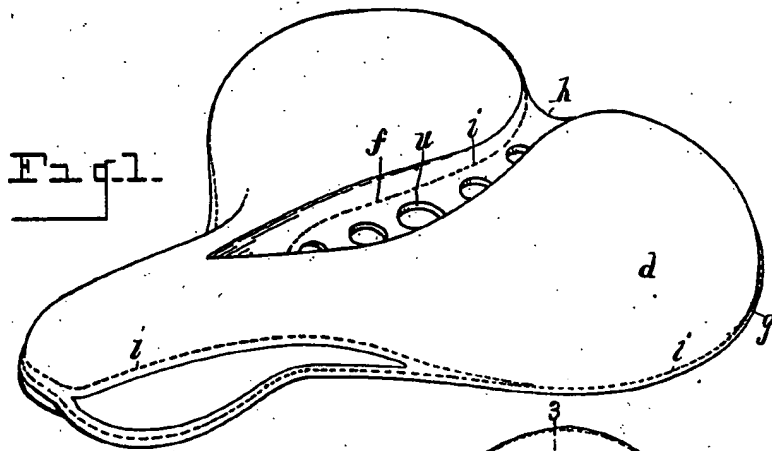
(No Model.)

2 Sheets—Sheet 1.

B. F. WHEELER.  
BICYOLE SADDLE.

No. 594,451.

Patented Nov. 30, 1897.



WITNESSES

*O. K. Kuziger*  
*M. A. Martin*

Fig. 4.

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*Benjamin F. Wheeler*  
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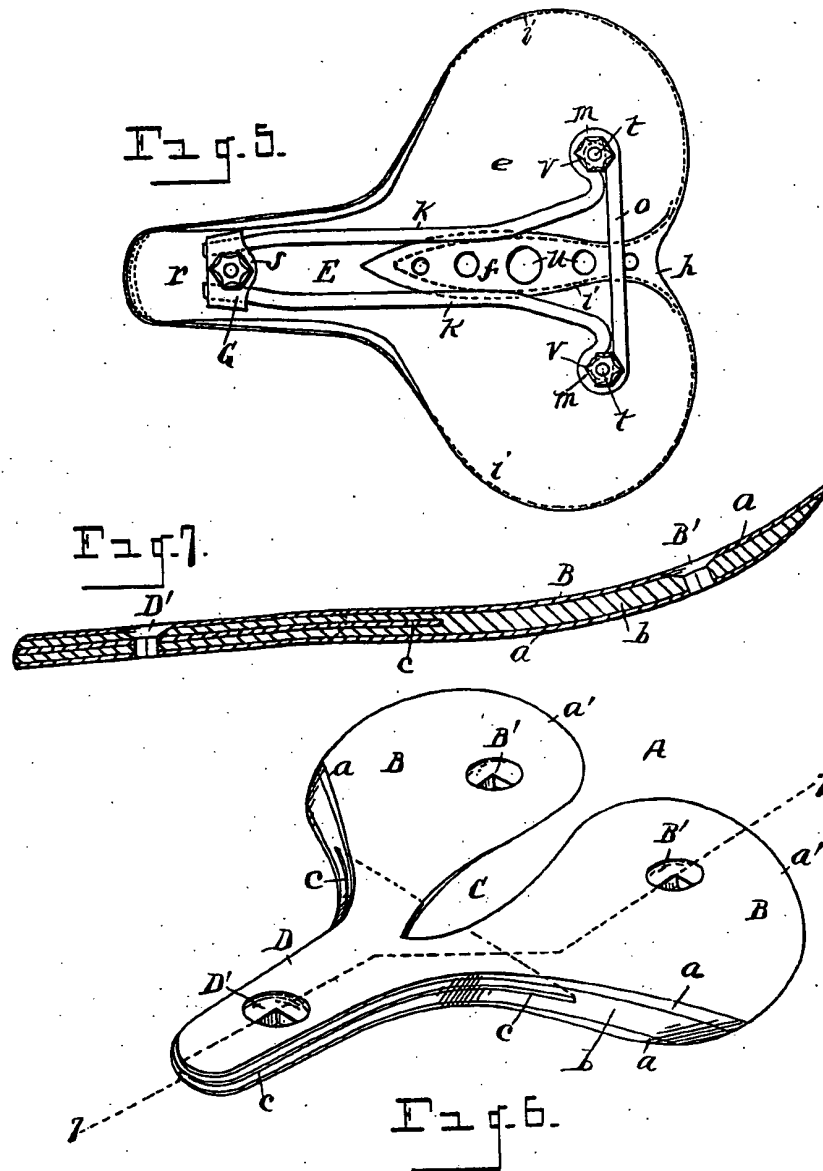
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THE MORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

BENJAMIN F. WHEELER, OF DETROIT, MICHIGAN, ASSIGNOR TO THE  
WHEELER SADDLE COMPANY, OF SAME PLACE.

## BICYCLE-SADDLE.

SPECIFICATION forming part of Letters Patent No. 594,451, dated November 30, 1897.

Application filed May 28, 1897. Serial No. 638,492. (No model.)

*To all whom it may concern:*

Be it known that I, BENJAMIN F. WHEELER, a citizen of the United States, residing at Detroit, in the county of Wayne, State of Michigan, have invented certain new and useful Improvements in Bicycle-Saddles; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in bicycle-saddles; and it consists in the construction and arrangement of parts hereinafter fully set forth, and pointed out in the claims.

The objects of the invention are to provide a strong, light, serviceable, and shapely saddle in which the construction is such as to afford a firm and natural support for the body and obviate undue pressure upon the sensitive parts, at the same time relieving any undue pressure at the lower end of the spine and affording a saddle sufficiently soft upon its seating-surface to obviate extreme rigidity. These objects are attained by the construction and arrangement of parts illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my improved saddle. Fig. 2 is a plan view thereof. Fig. 3 is a transverse section on line 3 3 of Fig. 2. Fig. 4 is a central longitudinal section on line 4 4 of Fig. 2. Fig. 5 is an inverted plan of the saddle. Fig. 6 is a perspective of the wooden frame or tree upon which the leather of the saddle is mounted. Fig. 7 is a central longitudinal section on line 7 7 of Fig. 6.

Referring to the letters of reference, A designates the saddletree, which is formed of a number of thin layers of wood glued together and pressed into concavo-convex form to give the proper dish to the saddle. The body of the saddletree is composed of three layers of

wood; the inner layer *b* being thicker than the outer layers *a* and having the grain thereof running transversely, while the grains of the outer layers run longitudinally, thus crossing the grains of the several layers of the tree, making a very light and strong construction. On referring to Fig. 6 it will be seen that this improved saddletree consists of two wings or members *B*, of flaring shape and of such area as to extend under the seating-surface of the leather covering of the saddle, having the curved rear edges *a'* and divided by the oblong central opening *C*. The forward ends of said divided members of the saddletree converge forward of the terminus of said central opening and unite in the integral neck or pommel. To strengthen the reduced neck of the tree at the point of junction of the members *B* therewith, the central layer *b* of said tree is provided with a slot, which extends well back into the body of the tree beyond the forward terminus of the dividing-opening *C*, and in which is inserted a reinforcing-tongue *c*, the grain of which extends longitudinally of the neck of the tree and strengthens said neck, as well as the members *B* of the tree, at the point of junction therewith.

Mounted directly upon the upper face of the saddletree is a quantity of interlaced hair or other suitable padding *E*, which is held in place by an adhesive and which extends over the upper surface of the members *B* of the tree and over the surface of the neck *D* thereof.

Embracing the saddletree and padding thereon are the upper and lower leathers *d* and *e*, respectively, which leathers are provided with an oblong central depression *f*, extending forward from the rear margins thereof and whose opposed surfaces meet between the side members *B* of the saddletree, as clearly shown in Figs. 3 and 4. The outer margins of said leathers also meet, as at *g*, beyond the perimeter of the saddletree, and said meeting surfaces are united by any suitable adhesive, while the saddle is subjected

to pressure between suitable dies, which compact firmly the padding E upon the upper face of the tree beneath the upper layer of leather, at the same time bringing the central depressions *f* of said leathers together, as well as the margins *g* thereof, and drawing the under leather tightly over the under surface of the tree, in which position said parts are retained until firmly set, after which said margins are stitched, as shown at *i*, which stitching extends around the nose of the saddle, and, following the line of the curve at the rear thereof, enters the central depression *f* between the members of the saddle-tree at the inwardly-curved point *h* and traverses the margin of said central depression, whereby the margins of said leathers are firmly united around the outer edges and throughout the central depression, thereby firmly retaining the padding in place and effectively securing the saddle-tree between said faces of leather. By this construction a saddle is formed comprising the padded pommel and two opposed padded sides, with a deep central depression between them, which depression extends outward to the rear margin of the saddle, thereby obviating any pressure on the perineum and preventing any bearing at the lower end of the spine, affording a firm and natural support for the rider and a light, comfortable, and durable saddle of pleasing shape. The union of the covering-leathers of the saddle between the members of the saddle-tree through the central opening therein forms a strong uniting-web between said members, which greatly stiffens and strengthens said construction, at the same time providing for a central depression which shall extend rearwardly to the outer margin of the saddle.

The saddle-support consists of an integral spring-wire F, comprising two longitudinally-extending parallel portions *k*, whose rear ends diverge and are formed into closed eyes *m*, united by the integral cross-bar *o*. The parallel portions *k* of said spring curve downwardly, as shown in Fig. 4, and their free ends extend forward and support the pommel of the saddle, being confined under an engaging plate G, through which passes a bolt *r*, seated in the aperture D' in the neck or pommel of the saddle-tree and receiving on its projecting end a nut *s*, which retains said plate in position. Seated in the apertures B' in the opposed members B of the saddle-tree are the bolts *t*, which pass through the eyes *m* in the rear ends of said spring and receive the nuts *v*, whereby said spring is securely fastened to the saddle at its rear end and the members of the saddle-tree firmly tied together by means of the cross-bar *o*, which extends between said bolts *t*, thereby stiffening the members of the saddle and preventing any racking of said parts.

The web extending between the divided

members of the saddle at the bottom of the central depression is provided with a series of apertures *u* for the purpose of ventilation.

The marginal edges of the saddle-tree are suitably beveled, so as to enable the coverings of leather to properly conform thereto and to allow their projecting margins to perfectly unite beyond the edges of said tree.

Having thus fully set forth my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a bicycle-saddle, the combination of the saddle-tree comprising two rearwardly-extending independent members divided by a central opening and united in a reduced forwardly-extending neck, of the leather covering consisting of two opposed layers embracing said tree having central depressions whose opposed faces meet between the members of said saddle-tree and extend outward to the rear margin of the saddle and whose marginal edges meet beyond the perimeter of said tree, and the line of stitching around said marginal edges and following the line of said central depression.

2. In a bicycle-saddle, a laminated wooden saddle-tree comprising two rearwardly-extending flaring members separated by a central oblong opening and having a reduced forwardly-extending neck, a reinforcing-tongue extending longitudinally of said neck into the body of said tree beyond the point of the forward terminus of said central opening.

3. In a bicycle-saddle, the saddle-tree comprising two rearwardly-extending flaring members curved at their rear edges and divided by an opening extending forward through the back of said tree and having a reduced forwardly-extending neck.

4. In a bicycle-saddle, the combination of the saddle-tree having two rearwardly-extending members divided by an opening extending through the back thereof and having a forwardly-extending neck, of the padding mounted upon the tree, the two coverings of leather embracing said tree and padding, said leathers being united between the divided members of said tree and beyond the marginal edges thereof, and the line of stitching through the united faces of said leathers around the divided members of said tree.

5. In a bicycle-saddle, the combination of the saddle-tree having a reduced neck and flaring independent members divided by a central opening extending forward through the back thereof, the coverings of leather embracing said tree and conforming thereto, said leathers meeting between said divided members forming a united web and having lapping margins which are united beyond the perimeter of said tree, the support or spring mounted upon the under face of the saddle attached to the pommel at its forward ends, the rear ends of said spring diverging and having the closed eyes, and having the inte-

5 gral cross-bar extending between said eyes  
across the dividing-opening between the mem-  
bers of said saddle, and the bolts mounted  
in the saddletree and projecting through said  
eyes in the spring.

10 6. In a bicycle-saddle, the combination of  
the saddletree having a reduced neck and  
flaring independent members divided by a  
central opening extending through the back  
of said tree, the coverings of leather embrac-  
ing said tree and conforming thereto, the

support or spring having a transverse bar  
which crosses the central opening between  
the members of the saddletree and is secured  
at opposite ends to said members.

15 In testimony whereof I affix my signature  
in presence of two witnesses.

BENJAMIN F. WHEELER.

Witnesses:

A. A. MANN,  
EDGAR S. WHEELER.